

## Weekly COVID-19 Update in Montana (as of 7/8/2022)

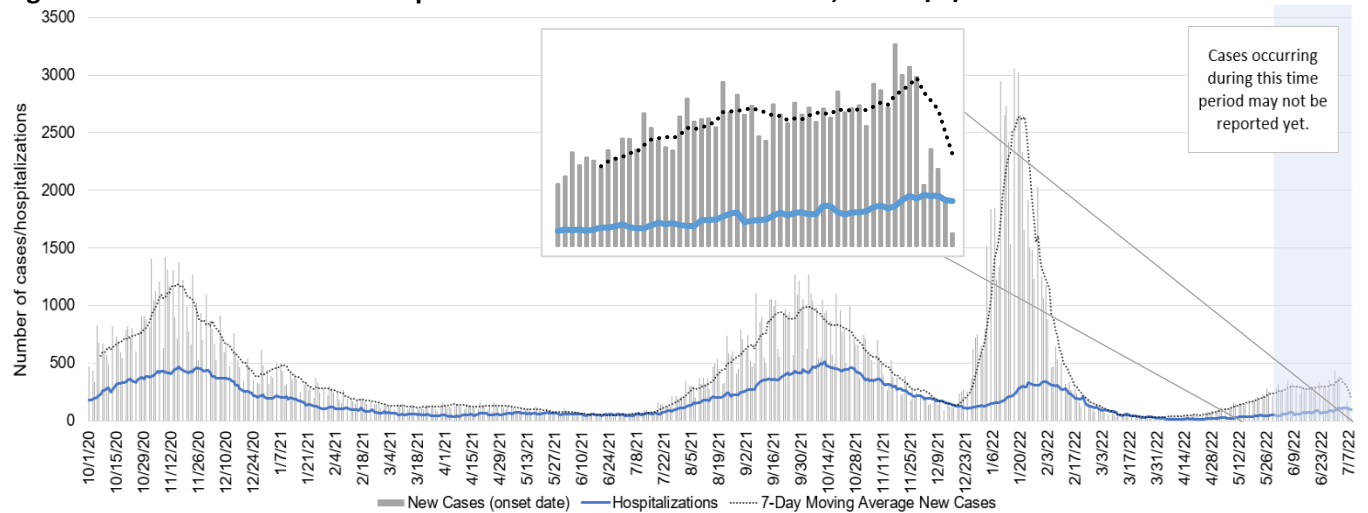
This report is a weekly snapshot of COVID-19 activity in Montana. Data are analyzed based on information available as of July 8, 2022. Data are provisional and expected to change as more information is received.

### Case Data

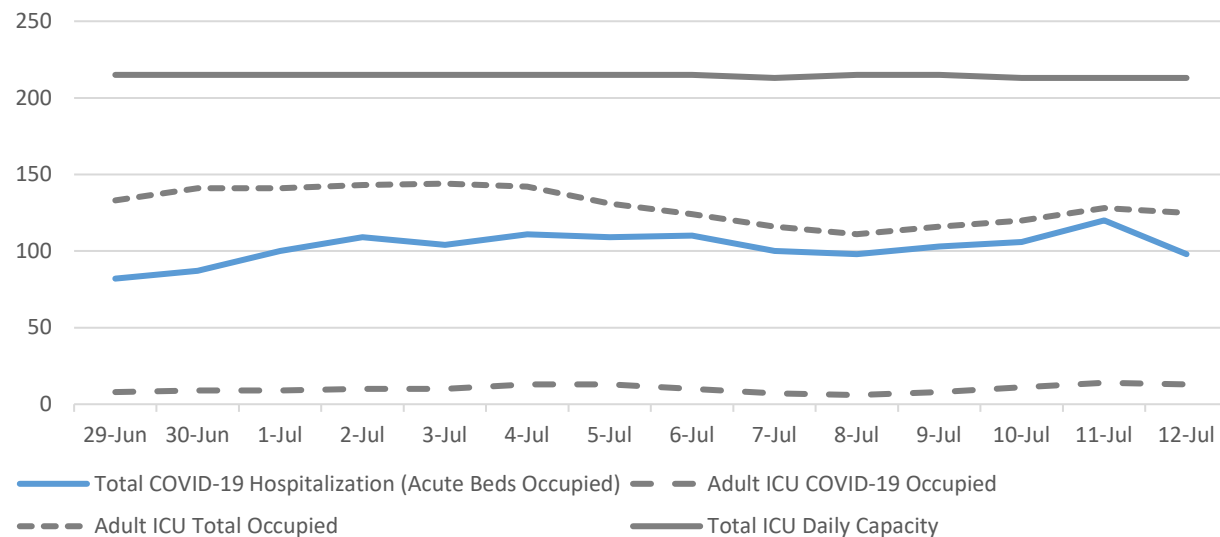
**Table 1. Summary of COVID-19 Activity – Montana, as of 7/8/2022**

|                  | TOTAL     | RECENT WEEK | PERCENT CHANGE FROM PREVIOUS WEEK |
|------------------|-----------|-------------|-----------------------------------|
| REPORTED CASES   | 290,676   | 2,295       | 0%                                |
| LABORATORY TESTS | 2,902,748 | 11,081      | -22%                              |
| HOSPITALIZATIONS | 12,518    | 106         | +25%                              |
| DEATHS           | 3,455     | 6           | +50%                              |

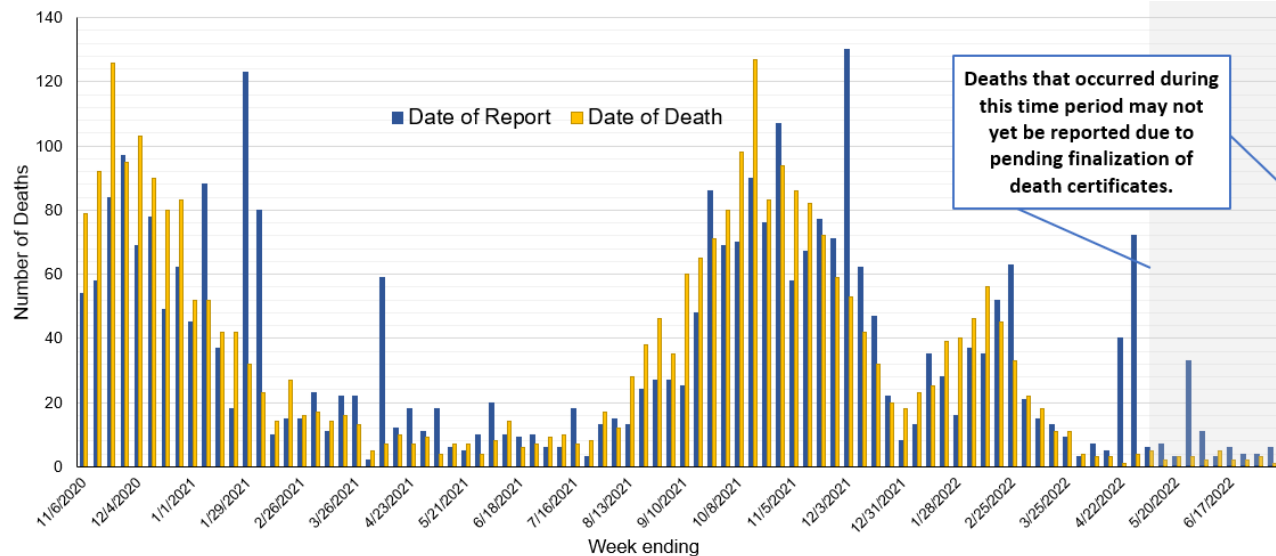
**Figure 1. COVID-19 Cases and Hospitalizations over Time – Montana, as of 7/8/2022**



**Figure 2: Status of Acute Care and ICU Beds – Hospitals in Montana, 6/29-7/12 2022**



**Figure 3. COVID-19 Deaths by Report Date and Date of Death – Montana, 11/1/2020 – 7/8/2022**



## Vaccine Data

Montana began vaccinating individuals in mid-December 2020 with a phased process: Phase 1A on December 14, 2020, Phase 1B on January 19, 2021, and Phase 1B+ on March 8, 2021. Vaccinations were opened to all Montanans age 16+ on April 1, 2021, and expanded to all Montanans age 12+ on May 10<sup>th</sup>, 2021. The Pfizer vaccine was approved for the 5–11 year-old age group on October 29<sup>th</sup>, 2021. The Pfizer and Moderna vaccines were approved for all Montanans aged 6 months and older on June 18, 2022. To date, 1,508,917 doses have been given across the state and 53% of the eligible population is considered fully vaccinated (table 2).

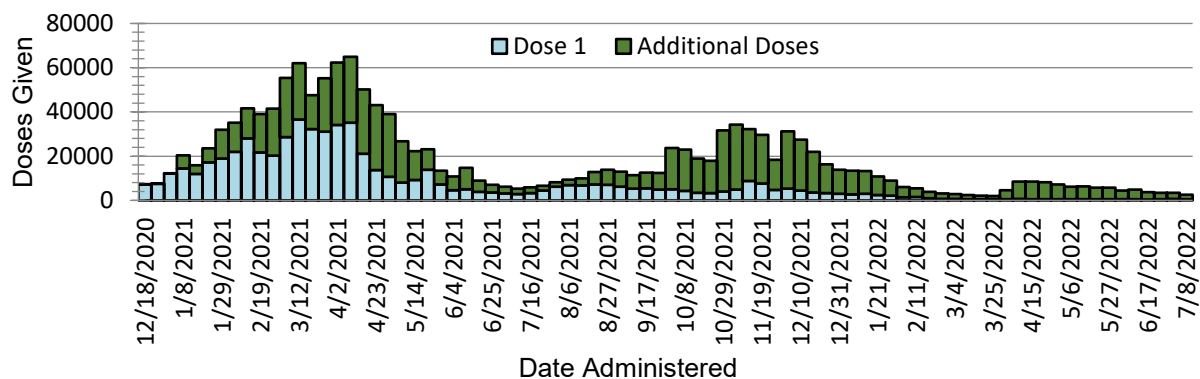
**Table 2: COVID-19 Vaccine Doses Administered, 0+ years-old – Montana, as of 7/8/2022**

|                              | NUMBER    | PERCENT OF ELIGIBLE POPULATION | WEEK ENDING 6/24 | WEEK ENDING 7/1 | WEEK ENDING 7/8** |
|------------------------------|-----------|--------------------------------|------------------|-----------------|-------------------|
| TOTAL DOSES ADMINISTERED     | 1,508,917 |                                | 3,473            | 3,477           | 2,591             |
| DOSE 1 ADMINISTERED          | 640,790   | 59%*                           | 568              | 737             | 565               |
| FULLY VACCINATED INDIVIDUALS | 569,285   | 53%*                           | 355              | 337             | 249               |

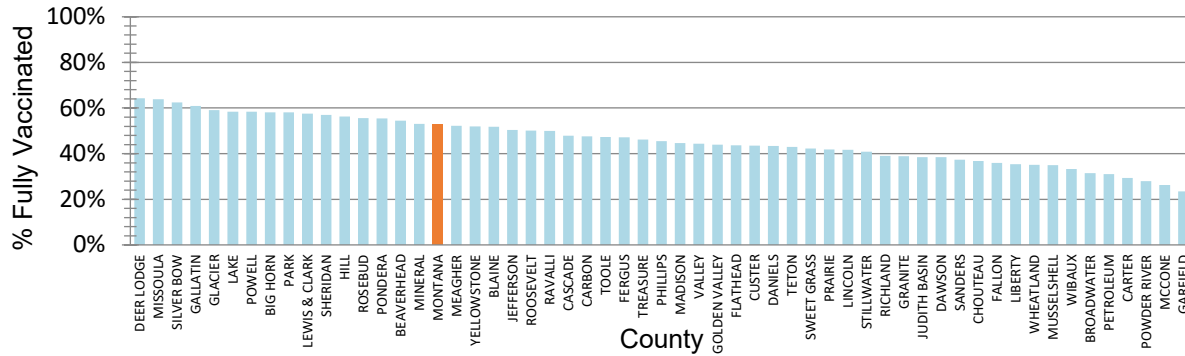
\*Please note that the decrease in percentages this week is due to the addition of the 0-4 year-old age group.

\*\*The data for the most recent week are preliminary and are expected to be an underestimate of the doses administered during the week, due to a reporting lag.

**Figure 4. COVID-19 Vaccine Doses Administered by Week, 0+ years-old – Montana, as of 7/8/2022**



**Figure 5. Percent of Eligible Montanans (0+ years-old) Fully Vaccinated by County – Montana, 7/8/2022**

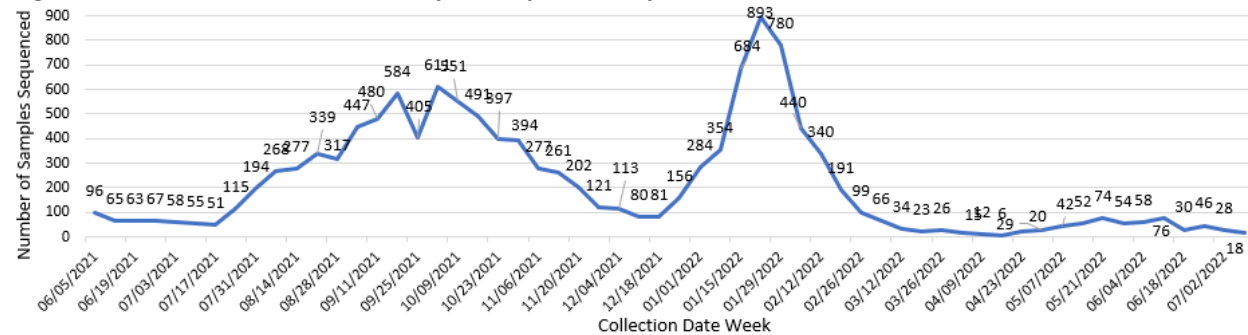


### Variant and Breakthrough Cases

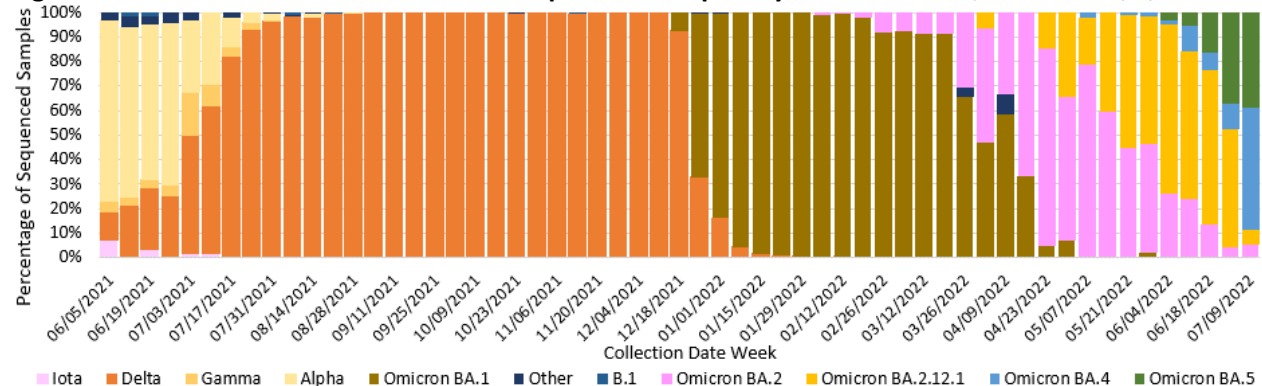
Figure 6 displays the number of Montana samples sequenced by week. Figure 7 displays the percentage of the most common SARS-CoV-2 lineages detected out of all Montana samples sequenced by week. There have been 17,204 samples from Montana that have been sequenced with their lineages reported to GISAID since September 2020. Please note the relatively small number of samples sequenced in recent weeks limits interpretation of the available variant sequencing data.

As of July 9, there have been 4,796 cases of COVID across Montana infected with Omicron variants. DPHHS is monitoring sublineages of the Omicron variant, including BA.2 (pink, below) and BA.2.12.1 (gold, below). Newer Omicron subvariants include BA.4 (light blue, below) first identified in Montana on May 4, 2022 and BA.5 (green, below) which was first identified in Montana on May 31, 2022. There have been 122 sequences reported to GISAID from positive samples collected in the last four weeks—50 (41%) BA.2.12.1, 45 (37%) BA.5, 19 (16%) BA.4, and 7 (6%) BA.2. There were 18 samples collected the week ending July 9, 2022, that were sequenced and reported to GISAID.

**Figure 6. Number of COVID-19 samples sequenced by collection date, Montana 7/9/2022**



**Figure 7. Percent of COVID-19 variants in sequenced samples by collection date, Montana 7/9/2022**



A breakthrough COVID-19 infection is defined as a positive SARS-CoV-2 specimen collected  $\geq 14$  days after completing the primary COVID-19 vaccine series of an FDA-authorized COVID-19 vaccine. Studies show that protection from COVID vaccination decreases over time; in response, the CDC has recommended booster doses for eligible populations to protect against waning immunity. As of July 12, 2022, Montana reports 51,908 cases of confirmed breakthrough disease, which includes 1,777 hospitalizations and 445 deaths. CDC data from April 2022 show that unvaccinated individuals aged 5 years and older were 1.9 times more likely to become infected with COVID-19, compared to individuals vaccinated with at least a primary series in the same age group. Additionally, unvaccinated individuals 5 and older had 6 times the risk of dying from COVID-19 compared to individuals vaccinated with at least a primary series in the same age group.<sup>1</sup>

### Hospitalizations and Deaths and Vaccination Status

COVID-19-related hospitalizations and deaths were analyzed between **April 1, 2021 and July 8, 2022** to review vaccination status. Since the beginning of April 2021, 77% of Montanans who were hospitalized and 76% of those who died were unvaccinated at the time of infection (Table 3). Of the 7,676 individuals who were hospitalized during this time period, 155 (2%) were <18 years old, 1,036 (13%) were 18 to 44 years old, 2,418 (32%) were 45 to 64 years old and 4,067 (53%) were  $\geq 65$  years old.

Additionally, COVID-19-related hospitalization and death data from **May 14 – July 8, 2022** (last 8 weeks) were analyzed to review vaccination status. Forty-eight percent of Montanans who were hospitalized and 52% of those who died had not received a COVID-19 vaccine (Table 4)<sup>†</sup>. Of the 537 individuals who were hospitalized during this time period, 15 (3%) were <18 years old, 67 (12%) were 18 to 44 years old, 97 (18%) were 45 to 64 years old and 358 (67%) were  $\geq 65$  years old.

**Table 3. Vaccination status of COVID-19 hospitalizations and deaths – April 1, 2021 to July 8, 2022**

|  | HOSPITALIZATIONS      | DEATHS                |
|--|-----------------------|-----------------------|
| TOTAL REPORTED                               | <b>7,676</b>          | <b>1,854</b>          |
| UNVACCINATED                                 | 5,911 (77%)           | 1,410 (76%)           |
| VACCINATED (BREAKTHROUGH CASE)               | 1,765 (23%)           | 444 (24%)             |
| UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE) | <b>&lt;1-102 (63)</b> | <b>&lt;1-103 (71)</b> |
| VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)   | <b>7-103 (74)</b>     | <b>20-101 (81)</b>    |

**Table 4. Vaccination status of COVID-19 hospitalizations and deaths – May 14 to July 8, 2022**

|  | HOSPITALIZATIONS      | DEATHS             |
|--|-----------------------|--------------------|
| TOTAL REPORTED                               | <b>537</b>            | <b>21</b>          |
| UNVACCINATED                                 | 260 (48%)             | 11 (52%)           |
| VACCINATED (BREAKTHROUGH CASE)               | 277 (52%)             | 10 (48%)           |
| UNVACCINATED AGE RANGE IN YEARS (MEDIAN AGE) | <b>&lt;1-100 (70)</b> | <b>61-100 (87)</b> |
| VACCINATED AGE RANGE IN YEARS (MEDIAN AGE)   | <b>13-99 (74)</b>     | <b>72-96 (81)</b>  |

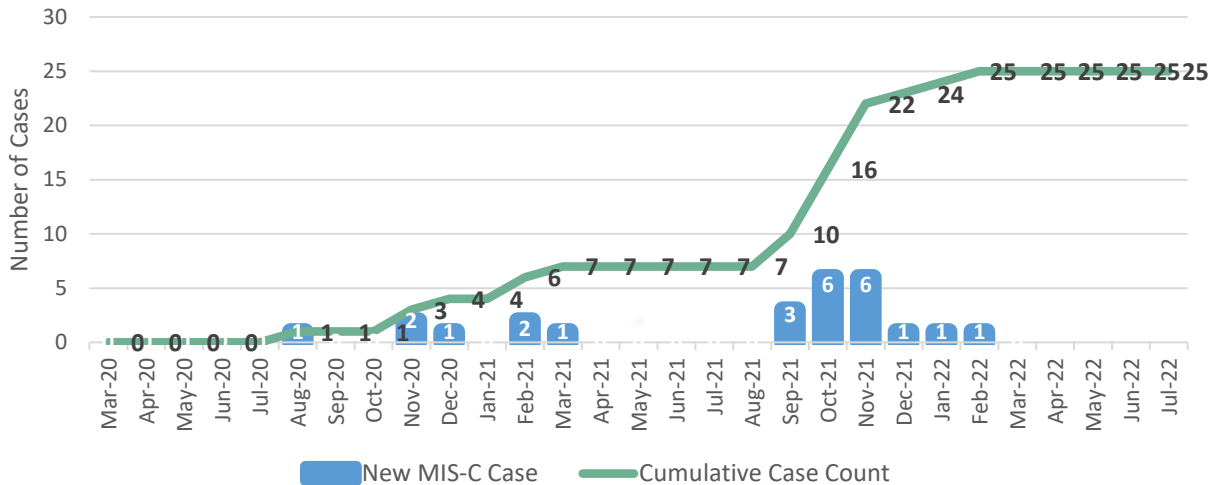
<sup>†</sup>The analysis of hospitalizations and deaths by vaccination status does not include data on booster doses. Booster doses are recommended by the CDC and have been shown to improve protection against death from COVID-19<sup>1</sup>.

<sup>1</sup> CDC – COVID Data Tracker – Rates of COVID-19 Cases and Deaths by Vaccination Status. <https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status>. July 12, 2022.

## Multisystem Inflammatory Syndrome in Children (MIS-C)

As of July 8, 2022, there have been a total of 25 cases of multisystem inflammatory syndrome in children, or MIS-C, reported in Montana. There have been no deaths. Ages range from less than 1 year to 20 years old; median is 9 years. Eleven cases were female, 14 were male. Cases are from 13 counties around Montana. The first case of MIS-C was reported in August 2020; 18 of the 25 cases have been reported since September 2021 (Figure 8).

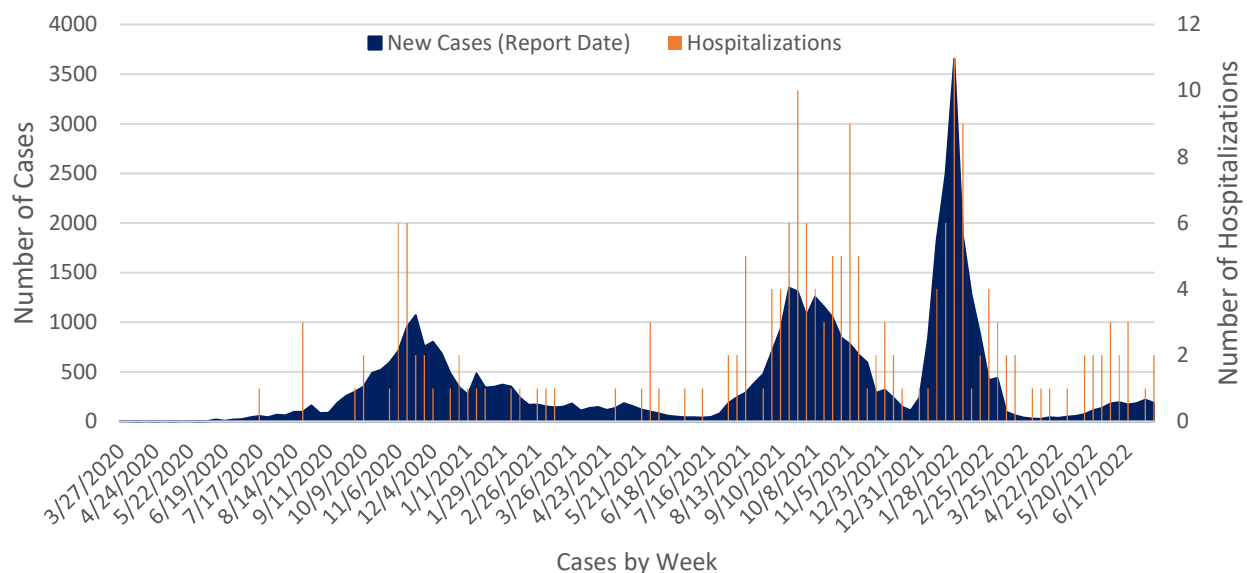
**Figure 8. Montana MIS-C Cases by Month of Onset, March 2020 – July 2022**



## Cases and Hospitalizations Associated with COVID-19 Among Children

To date, there have been 44,573 children <18 years old in Montana diagnosed with COVID-19. Of those, 191 (<1%) have been hospitalized. Case rates among children follow a similar pattern to COVID-19 cases among all age groups (see Figure 1 for comparison) and increased sharply during the recent Omicron surge (Figure 9). There were 186 cases of COVID-19 in children reported during the week of July 2 – July 8, 2022, which is a 15% decrease in cases among that age group compared to the previous week. Two hospitalizations in children were reported that week.

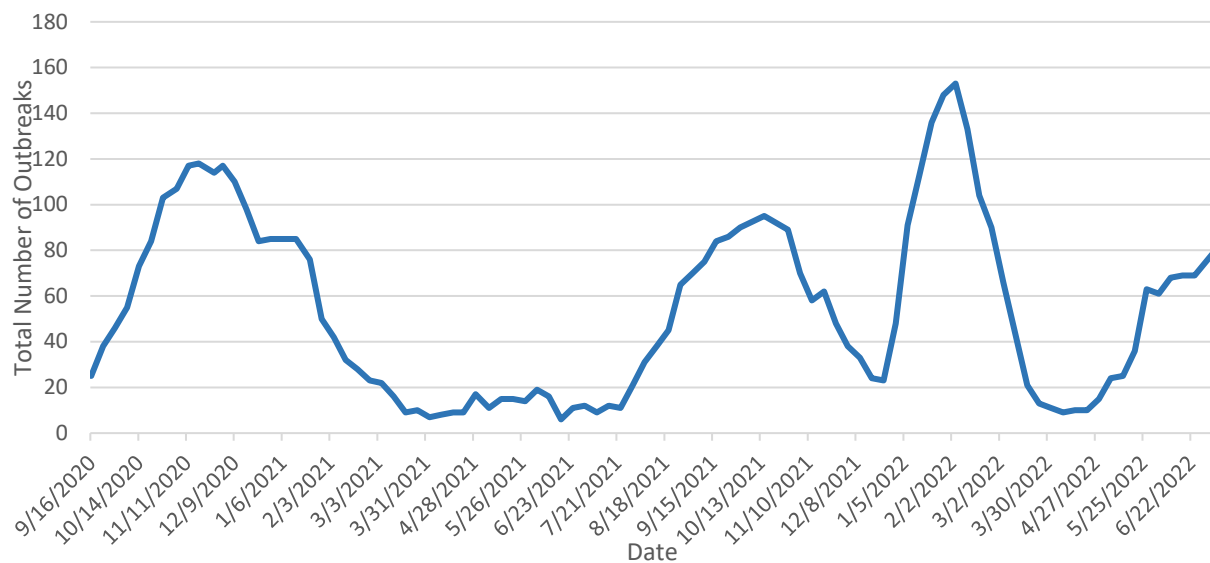
**Figure 9. COVID-19 Cases and Hospitalizations by Week, March 2020 – July 1, 2022, Children <18**



















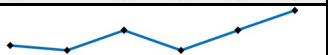












## Assisted Living Facility and Long Term Care Facility Cases and Hospitalizations

There are 71 long-term care facilities (LTCFs) and 211 assisted living facilities (ALFs) in Montana. As of July 8, 2022, there have been 12,251 cases associated with ALFs and LTCFs since the beginning of the pandemic, which comprises 4% of the total number of COVID-19 cases Montana has reported. There have been 654 COVID-related deaths associated with ALFs and LTCFs in Montana, which accounts for 19% of the COVID-related deaths that Montana has reported since the beginning of the pandemic. Facilities that have identified a case of COVID-19 in a resident or staff member within the last 14 days are considered to be actively responding to an outbreak. There were 79 facilities that were actively responding to a COVID outbreak as of July 8, 2022 (Figure 10).

**Figure 10. Montana ALF and LTCF Outbreaks by Week, September 2020-June 2022**



## Reported COVID-19 Cases by County with Trendline – Montana, past 6 weeks

| County          | 3-Jun | 10-Jun | 17-Jun | 24-Jun | 1-Jul | 8-Jul | change from previous week* | Trendline   |
|-----------------|-------|--------|--------|--------|-------|-------|----------------------------|---|
| Beaverhead      | 15    | 15     | 18     | 25     | 12    | 7     | -5                         |    |
| Big Horn        | 18    | 16     | 7      | 14     | 19    | 31    | 12                         |    |
| Blaine          | 32    | 18     | 7      | 6      | 12    | 9     | -3                         |    |
| Broadwater      | 8     | 11     | 9      | 3      | 14    | 3     | -11                        |    |
| Carbon          | 8     | 9      | 10     | 10     | 12    | 14    | 2                          |    |
| Carter          | 1     | 2      | 1      | 1      | 0     | 3     | 3                          |    |
| Cascade         | 122   | 174    | 130    | 177    | 193   | 228   | 35                         |    |
| Chouteau        | 6     | 9      | 7      | 7      | 13    | 17    | 4                          |    |
| Custer          | 15    | 13     | 10     | 10     | 7     | 10    | 3                          |    |
| Daniels         | 5     | 1      | 0      | 2      | 4     | 4     | 0                          |    |
| Dawson          | 6     | 8      | 12     | 9      | 7     | 16    | 9                          |    |
| Deer Lodge      | 12    | 18     | 28     | 38     | 37    | 30    | -7                         |  |
| Fallon          | 3     | 1      | 4      | 1      | 3     | 4     | 1                          |  |
| Fergus          | 10    | 20     | 17     | 5      | 12    | 9     | -3                         |  |
| Flathead        | 134   | 169    | 234    | 208    | 212   | 250   | 38                         |  |
| Gallatin        | 368   | 359    | 261    | 303    | 290   | 266   | -24                        |  |
| Garfield        | 4     | 6      | 2      | 4      | 0     | 0     | 0                          |  |
| Glacier         | 25    | 25     | 32     | 26     | 9     | 25    | 16                         |  |
| Golden Valley   | 0     | 2      | 0      | 0      | 0     | 0     | 0                          |  |
| Granite         | 4     | 3      | 7      | 3      | 7     | 11    | 4                          |  |
| Hill            | 25    | 14     | 19     | 25     | 29    | 22    | -7                         |  |
| Jefferson       | 16    | 23     | 25     | 32     | 26    | 38    | 12                         |  |
| Judith Basin    | 2     | 1      | 3      | 1      | 2     | 1     | -1                         |  |
| Lake            | 71    | 81     | 78     | 83     | 53    | 66    | 13                         |  |
| Lewis and Clark | 218   | 206    | 177    | 204    | 183   | 213   | 30                         |  |
| Liberty         | 3     | 9      | 10     | 6      | 6     | 3     | -3                         |  |
| Lincoln         | 30    | 32     | 27     | 21     | 43    | 36    | -7                         |  |
| Madison         | 15    | 19     | 21     | 23     | 33    | 29    | -4                         |  |
| McCone          | 0     | 0      | 1      | 3      | 0     | 4     | 4                          |  |
| Meagher         | 6     | 7      | 9      | 2      | 2     | 4     | 2                          |  |



| County         | 3-Jun       | 10-Jun      | 17-Jun      | 24-Jun      | 1-Jul       | 8-Jul       | change from<br>previous week* | Trendline |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|-----------|
| Mineral        | 4           | 21          | 13          | 18          | 11          | 15          | 4                             |           |
| Missoula       | 206         | 214         | 249         | 268         | 383         | 287         | -96                           |           |
| Musselshell    | 3           | 3           | 5           | 9           | 6           | 1           | -5                            |           |
| Park           | 55          | 46          | 43          | 33          | 58          | 53          | -5                            |           |
| Petroleum      | 0           | 0           | 0           | 0           | 0           | 0           | 0                             |           |
| Phillips       | 2           | 3           | 1           | 8           | 8           | 1           | -7                            |           |
| Pondera        | 8           | 11          | 5           | 8           | 6           | 22          | 16                            |           |
| Powder River   | 5           | 5           | 1           | 3           | 0           | 3           | 3                             |           |
| Powell         | 13          | 7           | 8           | 11          | 19          | 14          | -5                            |           |
| Prairie        | 2           | 2           | 2           | 0           | 0           | 2           | 2                             |           |
| Ravalli        | 38          | 56          | 48          | 43          | 53          | 53          | 0                             |           |
| Richland       | 7           | 19          | 15          | 8           | 9           | 6           | -3                            |           |
| Roosevelt      | 6           | 14          | 10          | 8           | 12          | 13          | 1                             |           |
| Rosebud        | 5           | 10          | 11          | 5           | 21          | 12          | -9                            |           |
| Sanders        | 9           | 5           | 14          | 6           | 10          | 13          | 3                             |           |
| Sheridan       | 21          | 9           | 4           | 9           | 3           | 12          | 9                             |           |
| Silver Bow     | 31          | 69          | 86          | 69          | 71          | 56          | -15                           |           |
| Stillwater     | 7           | 9           | 8           | 6           | 7           | 7           | 0                             |           |
| Sweet Grass    | 3           | 1           | 2           | 2           | 8           | 6           | -2                            |           |
| Teton          | 10          | 4           | 7           | 8           | 16          | 19          | 3                             |           |
| Toole          | 2           | 6           | 6           | 6           | 8           | 9           | 1                             |           |
| Treasure       | 0           | 0           | 0           | 0           | 0           | 1           | 1                             |           |
| Valley         | 8           | 10          | 14          | 11          | 18          | 35          | 17                            |           |
| Wheatland      | 1           | 1           | 0           | 2           | 5           | 7           | 2                             |           |
| Wibaux         | 1           | 2           | 0           | 0           | 0           | 0           | 0                             |           |
| Yellowstone    | 163         | 190         | 247         | 251         | 316         | 295         | -21                           |           |
| <b>MONTANA</b> | <b>1792</b> | <b>1988</b> | <b>1965</b> | <b>2044</b> | <b>2288</b> | <b>2295</b> | <b>7</b>                      |           |

\*Note: Data are based on the date of report into the Montana Infectious Disease Information System (MIDIS). Underlined numbers in the above table reflect adjusted counts and may include cases diagnosed but not reported in earlier time frames. These adjustments result from local and state data reconciliation efforts, conducted to ensure accurate data.



| County name    | Eligible<br>population 0+ | Dose 1         | Fully<br>Immunized | Total Doses<br>Administered | Percent eligible with<br>first dose (0+) | Percent Fully<br>Vaccinated (0+) |
|----------------|---------------------------|----------------|--------------------|-----------------------------|--|----------------------------------|
| BEAVERHEAD     | 9,483                     | 5,551          | 5,162              | 13,108                      | 59%                                      | 54%                              |
| BIG HORN       | 13,063                    | 8,348          | 7,595              | 18,874                      | 64%                                      | 58%                              |
| BLAINE         | 6,568                     | 3,794          | 3,400              | 8,880                       | 58%                                      | 52%                              |
| BROADWATER     | 6,444                     | 2,420          | 2,026              | 5,427                       | 38%                                      | 31%                              |
| CARBON         | 10,921                    | 5,635          | 5,191              | 13,738                      | 52%                                      | 48%                              |
| CARTER         | 1,235                     | 383            | 362                | 933                         | 31%                                      | 29%                              |
| CASCADE        | 81,346                    | 43,606         | 38,907             | 100,727                     | 54%                                      | 48%                              |
| CHOUTEAU       | 5,699                     | 2,257          | 2,099              | 5,721                       | 40%                                      | 37%                              |
| CUSTER         | 11,292                    | 5,417          | 4,916              | 12,585                      | 48%                                      | 44%                              |
| DANIELS        | 1,638                     | 745            | 711                | 1,808                       | 45%                                      | 43%                              |
| DAWSON         | 8,555                     | 3,591          | 3,292              | 8,556                       | 42%                                      | 38%                              |
| DEER LODGE     | 9,204                     | 6,435          | 5,914              | 15,872                      | 70%                                      | 64%                              |
| FALLON         | 2,826                     | 1,087          | 1,014              | 2,586                       | 38%                                      | 36%                              |
| FERGUS         | 11,104                    | 5,574          | 5,243              | 13,926                      | 50%                                      | 47%                              |
| FLATHEAD       | 105,851                   | 53,229         | 46,222             | 123,478                     | 50%                                      | 44%                              |
| GALLATIN       | 116,806                   | 84,134         | 71,145             | 191,754                     | 72%                                      | 61%                              |
| GARFIELD       | 1,268                     | 318            | 297                | 686                         | 25%                                      | 23%                              |
| GLACIER        | 13,594                    | 10,635         | 8,041              | 22,113                      | 78%                                      | 59%                              |
| GOLDEN VALLEY  | 827                       | 394            | 363                | 922                         | 48%                                      | 44%                              |
| GRANITE        | 3,317                     | 1,476          | 1,290              | 3,456                       | 44%                                      | 39%                              |
| HILL           | 16,358                    | 10,024         | 9,201              | 22,755                      | 61%                                      | 56%                              |
| JEFFERSON      | 12,360                    | 6,834          | 6,235              | 16,888                      | 55%                                      | 50%                              |
| JUDITH BASIN   | 1,994                     | 817            | 768                | 2,000                       | 41%                                      | 39%                              |
| LAKE           | 30,986                    | 20,401         | 18,108             | 48,739                      | 66%                                      | 58%                              |
| LEWIS & CLARK  | 70,229                    | 46,003         | 40,402             | 111,030                     | 66%                                      | 58%                              |
| LIBERTY        | 2,369                     | 865            | 838                | 2,165                       | 37%                                      | 35%                              |
| LINCOLN        | 20,343                    | 9,566          | 8,489              | 22,799                      | 47%                                      | 42%                              |
| MADISON        | 8,959                     | 4,467          | 3,994              | 10,648                      | 50%                                      | 45%                              |
| MCCONE         | 1,648                     | 454            | 432                | 1,170                       | 28%                                      | 26%                              |
| MEAGHER        | 1,831                     | 1,017          | 957                | 2,530                       | 56%                                      | 52%                              |
| MINERAL        | 4,544                     | 2,649          | 2,408              | 6,131                       | 58%                                      | 53%                              |
| MISSOULA       | 121,630                   | 85,877         | 77,608             | 208,505                     | 71%                                      | 64%                              |
| MUSSELSHELL    | 4,669                     | 1,755          | 1,634              | 4,081                       | 38%                                      | 35%                              |
| PARK           | 16,760                    | 11,313         | 9,735              | 26,298                      | 68%                                      | 58%                              |
| PETROLEUM      | 500                       | 165            | 155                | 402                         | 33%                                      | 31%                              |
| PHILLIPS       | 3,919                     | 1,923          | 1,784              | 4,484                       | 49%                                      | 46%                              |
| PONDERA        | 5,782                     | 3,590          | 3,208              | 8,196                       | 62%                                      | 55%                              |
| POWDER RIVER   | 1,681                     | 506            | 469                | 1,180                       | 30%                                      | 28%                              |
| POWELL         | 6,817                     | 4,263          | 3,981              | 9,723                       | 63%                                      | 58%                              |
| PRAIRIE        | 1,067                     | 470            | 446                | 1,201                       | 44%                                      | 42%                              |
| RAVALLI        | 45,002                    | 24,837         | 22,464             | 60,319                      | 55%                                      | 50%                              |
| RICHLAND       | 11,043                    | 4,569          | 4,308              | 10,384                      | 41%                                      | 39%                              |
| ROOSEVELT      | 10,964                    | 6,121          | 5,493              | 13,461                      | 56%                                      | 50%                              |
| ROSEBUD        | 8,836                     | 5,484          | 4,908              | 12,569                      | 62%                                      | 56%                              |
| SANDERS        | 12,157                    | 5,099          | 4,543              | 12,225                      | 42%                                      | 37%                              |
| SHERIDAN       | 3,261                     | 1,960          | 1,856              | 5,004                       | 60%                                      | 57%                              |
| SILVER BOW     | 35,180                    | 24,059         | 21,981             | 59,328                      | 68%                                      | 62%                              |
| STILLWATER     | 9,888                     | 4,389          | 4,037              | 10,392                      | 44%                                      | 41%                              |
| SWEET GRASS    | 3,684                     | 1,717          | 1,556              | 4,038                       | 47%                                      | 42%                              |
| TETON          | 6,249                     | 3,150          | 2,688              | 6,910                       | 50%                                      | 43%                              |
| TOOLE          | 4,686                     | 2,369          | 2,217              | 5,145                       | 51%                                      | 47%                              |
| TREASURE       | 695                       | 436            | 321                | 929                         | 63%                                      | 46%                              |
| VALLEY         | 7,359                     | 3,459          | 3,269              | 8,386                       | 47%                                      | 44%                              |
| WHEATLAND      | 2,157                     | 818            | 758                | 2,003                       | 38%                                      | 35%                              |
| WIBAUX         | 939                       | 365            | 312                | 830                         | 39%                                      | 33%                              |
| YELLOWSTONE    | 162,990                   | 93,970         | 84,532             | 220,919                     | 58%                                      | 52%                              |
| <b>MONTANA</b> | <b>1,080,577</b>          | <b>640,790</b> | <b>569,285</b>     | <b>1,508,917</b>            | <b>59%</b>                               | <b>53%</b>                       |